Sit

5

10

## I CLAIM:

- I. A self-wound, water dissolvable, tape.
- 2. A tape according to claim 1 comprising a water dissolvable, continuous phase substrate having a first surface and a second surface.
  - 3. A tape according to claim including a water dissolvable, continuous phase adhesive layer on the first surface of the substrate.
  - 4. A tape according to claim 3 including a water dissolvable, continuous phase abherent layer on the second surface of the substrate.
    - 5. A tape according to claim 2 wherein the substrate includes a water insoluble, discontinuous phase.
    - 6. A tape according to claim 3 wherein the adhesive layer includes a water insoluble, discontinuous phase.
    - 7. A tape according to claim 4 wherein the abherent layer includes a water insoluble discontinuous phase.
    - 8. A tape according to claim 2 wherein the substrate is at least one organic compound incorporating one or more high polarity functional groups.
    - 9. A tape according to claim 8 wherein the polar functional groups include an acid functionality.
- 10. A tape according to claim 8 wherein the polar functional groups include an alcohol functionality.

25

20

5

10

15

1

- 11. A tape according to claim 8 wherein the polar functional groups include a ketone functionality.
- 12. A tape according to claim 8 wherein the polar functional groups include an alternyde functionality.
- 13. A tape according to claim 8 wherein the polar functional groups include an ester linkage.
- 14. A tape according to claim 2 wherein the water dissolvable, continuous phase substrate comprises a soluble starch.
- 15. A tape according to claim 3 wherein the water dissolvable, continuous phase adhesive layer comprises an ionic salt of a polyacrylic acid.
- 16. A tape according to claim 4 wherein the water dissolvable, continuous phase abherent layer comprises lecithin.
- 17. A tape according to claim 2 wherein the substrate includes a water insoluble, discontinuous phase of cellulose fibers.
- 18. A tape according to claim 3 wherein the adhesive layer includes a water insoluble, discontinuous phase of a high molecular weight acrylic acid.
- 19. A tape according to claim 4 wherein the abherent layer includes a water insoluble discontinuous phase of polymethyl siloxane.

30

25

20. A tape according to claim 14 wherein the soluble starch comprises cationic corn starch.

21. A roll of water dissolvable, self-wound tape comprising a first abherent layer comprising a first, water dissolvable, continuous phase and a second, non-dissolvable, discontinuous phase, a second substrate layer comprising a first, water dissolvable, continuous phase and a second, non-dissolvable, discontinuous phase, and a third layer comprising a water dissolvable pressure sensitive adhesive continuous phase and a second, non-dissolvable, discontinuous phase wound upon a core.

22. A roll according to claim 21 wherein the water dissolvable continuous phase of the abherent layer comprises lecithin, and the discontinuous, non-dissolvable, discontinuous phase comprises polymethyl siloxane; the water dissolvable continuous phase of the substrate layer comprises a soluble starch, and the nondissolvable discontinuous phase comprises an ionic salt of poly-acrylic acid and the non-dissolvable, discontinuous phase comprises a nondissolvable, higher molecular weight acrylic acid.